

REMARKS

Applicants have amended claims 1, 15, 51, and 69 and canceled claims 3-5, 8 and 25. Claims 1, 2, 6, 7, 9-11, 13-24, 28, 30, 31, 51-58, 66-79, and 81-86, of which claims 1, 15, 51 and 69 are independent in form, are presented for examination.

Claims 1-6, 9-11, 13-23, 28, 30, 31, 51-54, 56, 82, 83 and 86 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0 277 020 (Mizuta) in view of U.S. Patent No. 6,172,009 (Smith). The independent claims have been amended to include the features of now-canceled claim 8, which was not rejected as being unpatentable over Mizuta in view of Smith. As a result, the rejection over Mizuta in view of Smith should be withdrawn.

Claims 1-3, 6, 7, 13-17, 20-24, 28, 30, 31, 51, 56, 58, and 86 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of EP 0 431 813 (Chen). The independent claims have been amended to include the features of now-canceled claim 8, which was not rejected as being unpatentable over Smith in view of Chen. As a result, the rejection over Smith in view of Chen should be withdrawn.

Claims 1-3, 6-8, 13-17, 20-25, 28, 30, 31, 51, 55-58, 66-79, 81, and 86 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,022,832 (Fritzemeier) in view of Chen. The Examiner has acknowledged that Fritzemeier does not disclose using a copper salt other than a trifluoroacetate and has relied on Chen for disclosing a non-halogenated carboxylate salt of a transition metal, as claimed. According to the Examiner, it would have been obvious to have used a copper salt such as copper ethylhexanoate, as disclosed by Chen, in addition to Fritzemeier's copper trifluoroacetate with "the expectation of similar results" because Chen discloses that such combinations are suitable copper precursors for forming YBCO superconductors.

But in proposing the above combination, the Examiner has ignored the chemistries of Fritzemeier's and Chen's precursor solutions. As the Examiner correctly noted, Fritzemeier discloses using a trifluoroacetate precursor solution as described in U.S. Patent No. 5,231,074 (Cima). Cima expressly uses a precursor solution in which all the metal species are present in the form of their trifluoroacetate salts because, according to Cima, superconductor films prepared from metal carboxylate precursors provide inferior properties, possibly due to trapped residual

precursor materials. (*See, e.g.*, Cima col. 1, lines 33-47.) Thus, one skilled in the art reading Fritzemeier (and Cima) would not have been motivated to use copper ethylhexanoate as described by Chen because Cima suggests away from using metal carboxylate precursors. Using Chen's copper ethylhexanoate as proposed by the Examiner would increase the possibility of having trapped residual precursor materials and inferior properties. Furthermore, Cima is interested in forming metal fluorides in the intermediate of the superconductor product, and using copper ethylhexanoate as described by Chen would reduce formation of metal fluorides, which is clearly contrary to the goals of Cima. Moreover, Chen is using copper ethylhexanoate because it wants to provide hydrolysis and polymerization of its rare earth metal alkoxides and alkaline earth metal alkoxides to form primarily chain-like metaloxane polymers. (*See, e.g.*, Chen col. 3, lines 5-12.) Note that the only rare earth metal and alkaline earth metal species that Chen discloses are alkoxides. (*Id.* col. 7, lines 5-15.) As a result, there is simply no reason to use Chen's copper ethylhexanoate in Fritzemeier's precursor solution when Fritzemeier's precursor solution does not contain an alkoxide. The Examiner cannot arbitrarily mix and match components of two different precursor solutions when the precursor solutions are based on different chemistries because one skilled in the art would not have done so. Indeed, Applicants submit that the Examiner is improperly using an obvious-to-try standard to reject the claims or using impermissible hindsight reasoning to reconstruct Applicants' claims. Because there is no motivation to combine Fritzemeier and Chen, either in the references themselves or in the knowledge of one skilled in the art, the rejection over Fritzemeier in view of Chen should be reconsidered and withdrawn.

Double Patenting

Claims 3-5 have been provisionally objected to as allegedly being substantial duplicates of claims 51-53, respectively. Applicants have canceled claims 3-5, without prejudice, to obviate the objections.

For at least the reasons discussed above, Applicants believe the claims are in condition for allowance, which action is requested.

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Serial No. : 10/673,307
Filed : September 29, 2003
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Attorney's Docket No.: 05770-156002 / AMSC-554
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Enclosed is a Petition for Extension of Time with the fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: August 15, 2006



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